

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001792**Date Inspected:** 16-Mar-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 800**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

New OBG Bay:

The QA Inspector randomly observed ZPMC welder Wang Lan Ying ID Number 045265, utilizing the Submerged Arc Welding (SAW) Process in the 1G Position (Flat Groove) with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2221B-L2c-S-1, to weld the fill pass on Side Plate Section SP57B to Side Plate Section SP69B at Weld Joint (WJ) SEG013A-012. The QA Inspector randomly observed ZPMC CWI Chen Chih-Ming monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 484 amps, 30 volts with a travel speed of 452 millimeters (mm) per minute. Weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

Bay 7 OBG:

The QA Inspector randomly observed a ZPMC Torch Cutting Operator utilizing a semiautomatic torch cutting apparatus, to cut access holes in 300 x 300 x 10 mm A500 GR B Structural Tube for Floor Beam Diagonals. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC Welder Zhang Qing Quan ID Number 044774, utilizing the Flux Cored Arc Welding (FCAW) Process in the 2G (Horizontal Groove) Position with ZPMC WPS

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WPS-B-T-223-TC-U4b-F-1, to weld the Complete Joint Penetration (CJP) Weld at WJ FB021-01-148 on the out side of the split flange on Floor Beam Sub-Assembly FB021-01. The QA Inspector randomly observed ZPMC CWI Huang Wen-Pang, monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 302 amps, 29.3 volts with a travel speed of 302 mm per minute.

The QA Inspector randomly observed ZPMC Welder Wu Wang ID Number 050242, utilizing the FCAW Process in the 2G (Horizontal Groove) Position with ZPMC WPS WPS-B-T-223-TC-U4b-F-1, to weld the CJP Welds at the tapered ends of various stiffeners on Floor Beam Sub-Assembly FB021-01. The QA Inspector randomly observed ZPMC CWI Huang Wen-Pang, monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 300 amps, 30 volts with a travel speed of 301 mm per minute.

The QA Inspector randomly observed ZPMC Welder Ren Jinzhu ID Number 044837, utilizing the Shielded Metal Arc Welding (SMAW) Process in the 2G (Horizontal Groove) Position with ZPMC WPS WPS-B-P-2212-TC-U4b-FCM, to weld the CJP Welds at the tapered ends of various stiffeners on Floor Beam Sub-Assembly FB022-02. The QA Inspector randomly observed ZPMC CWI Huang Wen-Pang, monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 220 amps, 24.7 volts with a travel speed of 127 mm per minute.

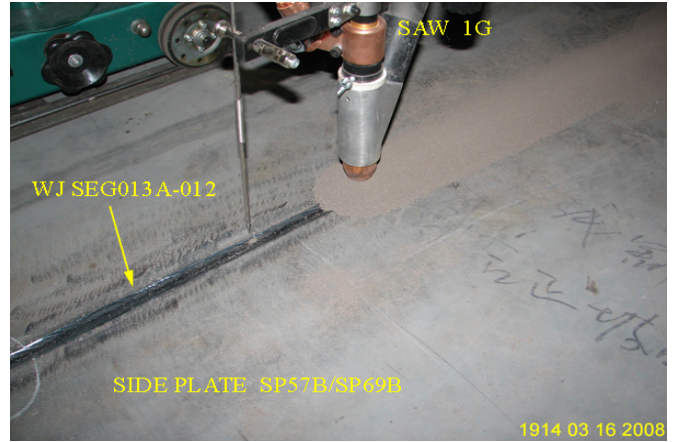
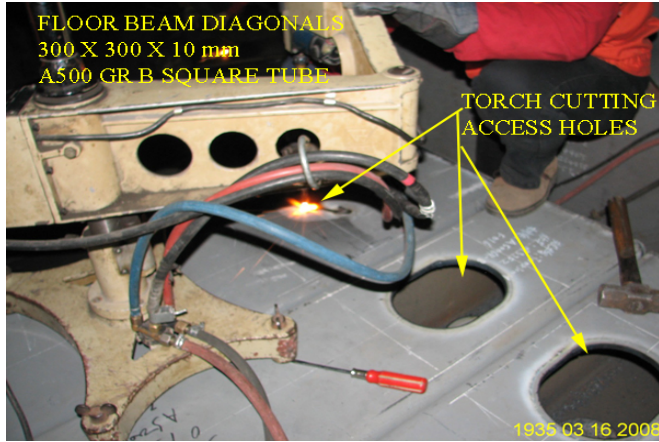
The QA Inspector randomly observed ZPMC Welder Yang Xuhe ID Number 057795, utilizing the SMAW Process in the 2G (Horizontal Groove) Position with ZPMC WPS WPS-B-P-2212-TC-U4b-FCM, to weld the CJP Welds at the tapered ends of various stiffeners on Floor Beam Sub-Assembly FB018-01. The QA Inspector randomly observed ZPMC CWI Huang Wen-Pang, monitoring weld parameters.

The QA Inspector randomly observed ZPMC Welders Wang Lingjiang ID Number 051356 and Chen Chuan Zong ID Number 044824, utilizing the FCAW Process with Hitronic HIT-18-1D Automatic Welding Carriages and ZPMC WPS WPS-B-T-2132-3 in the 2F (Horizontal Fillet) position, to weld various stiffeners to Floor Beam Sub-Assembly FB022-01. The QA Inspector randomly observed ZPMC CWI Huang Wen-Pang monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 303 amps, 29.6 volts with a travel speed of 454 mm per minute for Mr. Wang and 298 amps, 29.4 volts with a travel speed of 450 mm per minute for Mr. Chen. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Sun Guzuo ID Number 058100, utilizing the SAW Process in the 1G Position (Flat Groove) with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2221-B-L2c-S-1, to weld the fill pass on Floor Beam Diaphragm FB003-029 Web Sections at WJ FB003-029-006. The QA Inspector randomly observed ZPMC CWI Huang Wen-Pang monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 525 amps, 29.8 volts with a travel speed of 440 mm per minute. Weld parameters appeared to comply with contract requirements.

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Summary of Conversations:

There were no relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Franco,Charlie

Quality Assurance Inspector

Reviewed By: Hager,Craig

QA Reviewer